

**Durgin Sand & Gravel, Inc.**  
**Cumberland County**  
**Gray, Maine**  
**A-833-71-D-R**

**) Departmental**  
**) Findings of Fact and Order**  
**) Air Emission License**

After review of the air emissions license renewal application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

**I. REGISTRATION**

**A. Introduction**

Durgin Sand & Gravel, Inc. (DSG) of Gray, Maine has applied to renew their Air Emission License permitting the operation of emission sources associated with their crushed stone and gravel facility.

**B. Emission Equipment**

DSG is authorized to operate the following equipment:

**Diesel Power Source**

<b><u>Equipment</u></b>	<b><u>Maximum Capacity (MMBtu/hr)</u></b>	<b><u>Maximum Firing Rate (gal/hr)</u></b>	<b><u>Fuel Type, % sulfur</u></b>	<b><u>Power Output (HP)</u></b>	<b><u>Stack #</u></b>
Diesel #1	1.7	12.3	Diesel Fuel, 0.05%	240	1
Diesel #2	2.7	19.4	Diesel Fuel, 0.05%	380	2
Diesel #3	2.1	15.5	Diesel Fuel, 0.05%	300	3

**Process Equipment**

<b><u>Equipment</u></b>	<b><u>Production Rate (tons/hr)</u></b>	<b><u>Pollution Control Equipment</u></b>	<b><u>Manufacture Date</u></b>
Primary Crusher	124	Spray Nozzles	1974
Secondary Crusher #1	124	Spray Nozzles	1981
Secondary Crusher #2	160	Spray Nozzles	1992

### C. Application Classification

The application for DSG does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of current licensed emission units only.

## II. BEST PRACTICAL TREATMENT (BPT)

### A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

### B. Diesel Units

DSG operates three diesel units, designated Diesels #1, #2 and #3, as the power sources for their Primary and Secondary Rock Crushers. Diesels #1, #2 and #3 have maximum design heat inputs of 1.7, 2.7 and 2.1 MMBtu/hr, respectively, firing diesel fuel with a sulfur content of 0.05% by weight.

DSG shall not exceed an annual fuel usage of 10,000 gallons per year (gal/yr) of 0.05% sulfur (on-road diesel) diesel fuel based on a calendar year basis. Compliance with this fuel restriction shall be based on fuel receipts from the supplier showing the quantity and sulfur content of purchased fuel. Fuel use records shall be maintained on a monthly basis.

A summary of the BPT analysis for Diesels #1, #2 and #3 is as follows:

1. BPT for diesel fuel is a sulfur content of 0.05% by weight.
2. PM, NO<sub>x</sub>, CO and VOC emission limits for Diesels #1, #2 and #3 are based on AP-42 data dated 10/96 for diesel units smaller than 600 hp. PM<sub>10</sub> emission limits are based on PM limits.

3. Visible emissions from eac diesel stack shall not exceed 30% opacity on a six-minute block average except, for no more than 2 six-minute block averages in a 3-hour period.

**C. Rock Crushers**

DSG operates three rock crushers, designated Primary Crusher, Secondary Crusher #1 and Secondary Crusher #2. Primary Crusher and Secondary Crusher #1 are each portable, each have rated capacities of 124 tons/hr and were manufactured in 1974 and 1981, respectively. Therefore, Primary Crusher and Secondary Crusher #1 are not subject to EPA's New Source Performance Standards (NSPS) Subpart OOO for Nonmetallic Mineral Processing Plants manufactured after August 31, 1983, with capacities greater than 150 tons/hr for portable plants and greater than 25 tons/hr for non-portable plants. Secondary Crusher #2 is portable, has a rated capacity of 160 tons/hr and was manufactured in 1992. Therefore, Secondary Crusher #2 is subject to NSPS Subpart OOO.

The regulated pollutant from the rock crushers is particulate emissions. To meet the requirements of Best Practical Treatment (BPT) for control of particulate matter (PM) emissions from the rock crushers, DSG shall maintain and operate water sprays on the rock crushers as necessary to control visible emissions to no greater than 10% opacity on a 6-minute block average basis.

- D. Visible emissions from potential sources of fugitive particulate matter emissions, including material stockpiles and unpaved roadways, shall not exceed an opacity of 20%, except for no more than 5-minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any 1-hour.

**E. Annual Emission Restrictions**

DSG shall be restricted to the following:

- The total fuel use for the facility shall not exceed 10,000 gal/yr. on a calendar year basis of diesel fuel oil with a maximum sulfur content not to exceed 0.05% by weight.

**Total Allowable Annual Emission for the Facility**  
(used to calculate the annual license fee)

<b>Pollutant</b>	<b>Tons/Year</b>
PM	0.2
PM <sub>10</sub>	0.2
SO <sub>2</sub>	0.03
NO <sub>x</sub>	4.0
CO	0.7
VOC	0.2

### III.AMBIENT AIR QUALITY ANALYSIS

According to Maine's rule, *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Based on the above total facility emissions, DSG is below the emissions level required for modeling and monitoring.

### ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-833-71-D-R subject to the following conditions:

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

### STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (Title 38 MRSA §347-C).

- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in 06-096 CMR 115. [06-096 CMR 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353.
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]
- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]

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(11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

(i) perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:

- a. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
- b. pursuant to any other requirement of this license to perform stack testing.

(ii) install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

(iii) submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 115]

(12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

(i) within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

(ii) the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

- (iii)the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions. [06-096 CMR 115]
- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

## **SPECIFIC CONDITIONS**

(16) Diesel Units

A. Fuel use shall not exceed 10,000 gal/yr of diesel fuel oil with a maximum sulfur content of 0.05% by weight, based on a calendar year. Compliance with this fuel restriction shall be based on fuel receipts from the supplier showing the quantity of purchased fuel. Fuel use records shall be maintained on a monthly basis. [06-096 CMR 115, BPT]

B. Emissions shall not exceed the following:

<b>Equipment</b>		<b>PM</b>	<b>PM<sub>10</sub></b>	<b>SO<sub>2</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>VOC</b>
Diesel #1	lb/hr	0.5	0.5	0.09	7.4	1.6	0.6
Diesel #2	lb/hr	0.9	0.9	0.1	11.	2.5	0.9
Diesel #3	lb/hr	0.7	0.7	0.1	9.3	2.0	0.7

[MEDEP Chapter 115, BPT]

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- C. Visible emissions from each diesel stack shall not exceed 30% opacity on a six-minute block average except, for no more than 2 six-minute block averages in a 3-hour period. [06-096 CMR 101]
- (17) Rock Crushers
- A. DSG shall maintain spray nozzles on all the facility's rock crushers and operate the spray nozzles as necessary so as not to exceed visible emissions limits. Visible emissions from the crushers shall be limited to no greater than 10% opacity on a 6-minute block average basis. [06-096 CMR 101]
- B. DSG shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be kept on-site at the rock crushing location. [06-096 CMR 115, BPT]
- C. DSG shall maintain a log detailing and quantifying the hours of operation on a daily basis for all of the facility's rock crushers. The operation log shall be kept on-site at the rock crushing location. [06-096 CMR 115, BPT]
- (18) Visible emissions from potential sources of fugitive particulate matter emissions, including material stockpiles and unpaved roadways, shall not exceed an opacity of 20%, except for no more than 5-minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual 15-second opacity observations which exceed 20% in any 1-hour. [06-096 CMR 101]
- (19) DSG shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [06-096 CMR 115, BPT]
- (20) Equipment Relocation [06-096 CMR 115, BPT]:
- A. DSG shall notify the Bureau of Air Quality, by a written notification at least 48 hours prior to relocation of any equipment carried on this license. Written notice may be sent by mail, facsimile (fax), or e-mail. Notification sent by mail shall be sent to the address below or to a Department Regional Office:

Attn: Relocation Notice  
Maine DEP  
Bureau of Air Quality  
17 State House Station  
Augusta, ME 04333-0017

Equipment relocation notification can also be done on-line with e-notice at [www.maine.gov/dep/air/compliance/forms/relocation](http://www.maine.gov/dep/air/compliance/forms/relocation).



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The notification shall include the address of the equipment's new location, an identification of the equipment and the license number pertaining to the relocated equipment.

- B. Written notification shall also be made to the municipality where the equipment will be relocated, except in the case of an unorganized territory where notification will be made to the respective county commissioners.
- (21) DSG shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 MRSA §605-C).
- (22) DSG shall pay the annual air emission license fee within 30 days of March 31 of each year. Pursuant to 38 MRSA 353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for the revocation of the license under 38 MRSA 341-D, Subsection 3.

DONE AND DATED IN AUGUSTA, MAINE THIS      DAY OF      2007.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: \_\_\_\_\_  
DAVID P. LITTELL, COMMISSIONER

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

The term of this Order shall be for five (5) years from the signature above.

Date of initial receipt of application: **May 29, 2007**

Date of application acceptance: **June 5, 2007**

Date filed with the Board of Environmental Protection: \_\_\_\_\_

This Order prepared by, Peter G. Carleton, Bureau of Air Quality